

## Claims

1. A method for monitoring a technical device (1),  
which method is characterized by the following steps:
  - 5 a) a number of operational signals of the technical device (1) are detected while the technical device (1) is operating,
  - b) a mean operational signal value (15) is formed using at least some of the operational signals from the number  
10 thereof,
  - c) a normalized operational signal (17, 171) containing a deviation of a current value of the operational signal from the mean operational signal value (15) is formed for at least one operational signal, and
  - 15 d) the normalized operational signal (17, 171) is compared with a reference value range (35) of the relevant operational signal.
2. The method as claimed in claim 1,  
20 characterized in that  
the reference value range (25) is formed by means of a lowest (39) and a highest value (32) of the normalized operational signal (17, 171).
- 25 3. The method as claimed in claim 2,  
characterized in that  
the lowest (30) and/or highest value (32) of the normalized operational signal (17, 171) are determined from actual  
measured values of the relevant operational signal.  
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4. The method as claimed in claim 2,  
characterized in that  
the lowest (30) and/or highest value (32) of the normalized operational signal (17, 171) are determined using a

statistical distribution function.

5. The method as claimed in one of the claims 2 to 4,  
characterized in that  
5 the reference value range (35) is determined several times  
while the technical device (1) is operating and the  
normalized operational signal (17, 171) is compared with  
the current reference value range (35) in each case.
- 10 6. The method as claimed in one of the claims 1 to 5,  
characterized in that  
the operational signal's current value is additionally  
compared with a monitoring threshold specified in advance.
- 15 7. The method as claimed in one of the claims 1 to 6,  
characterized in that  
a corresponding mean operational signal value (15) is  
formed for operational signals of each type.